RANK IN CLASS AND OCCUPATIONAL CHOICE, MADRID HIGH SCHOOL GRADUATES, 1943, 1948, 1953, and 1958

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William C. Salmon

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RANK IN CLASS AND OCCUPATIONAL CHOICE, MADRID HIGH SCHOOL GRADUATES, 1943, 1948, 1953, and 1958

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William C. Salmon

Approved by Committee:

Simon Bartley
Chairman

Earle L Canfield
Dean of the Graduate Division

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CHAPTER I

INTRODUCTION

Each spring high schools across the nation complete the school year with commencement exercises. The two top scholars, valedictorian and salutatorian, are often publicly recognized.

Behind the scenes the school administrators close the records on the graduates. In compiling the final records the graduates are ranked scholastically. This is done to answer future requests by colleges, universities, or prospective employers as to the student's scholastic rank in the class. Scholarships may be given to the top ten per cent by colleges or universities. A student may be required to be in the top twenty-five, thirty-three and one-third, or fifty per cent to be admitted to a particular institution of higher learning.

I. THE PROBLEM

Statement of the problem. The purpose of this study was to determine the relationship between the occupational choice and the rank in class of the graduates of Madrid High School for the years 1943, 1948, 1953, and 1958.

Importance of the study. It is generally accepted that the student's rank in his high school graduating class has

importance. Some writers in the field of education have stated that rank in high school graduating class is an important factor in future college success.

Williams said, "Rank in the high school graduating class has been found to be one of the important factors in the prediction of college success."[1]

Many institutions of higher learning grant scholarships or other financial aid on the basis of the student's rank in his high school graduating class. Many prospective employers wish to know where the prospective employee stood in his high school graduating class.

Crawford said, "Education ultimately leads to one or another vocation."[2]

II. DEFINITIONS OF TERMS USED

The following terms are defined as used in this report:

Graduate. A Graduate is a person who has completed a minimum of sixteen units of the high school curriculum offering and has received a diploma so signifying.

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[1] Henrietta V. Williams and John P. McQuary, "High School Performance of College Freshmen," Educational Administration and Supervision, (May, 1953), pp. 303-308.

[2] Albert B. Crawford and Paul S. Burnham, Forecasting College Achievement (New Haven: Yale University Press, 1946), p. 4.

Advanced study. Advanced study is additional study carried on beyond high school graduation either academically or vocationally.

Curriculum. A curriculum encompasses all the activities that are provided for the student by the school.

Occupational choice. Occupational choice is the job that the graduate was engaged in at the time of the study.

Job code number. A job code number is the number assigned to a particular job signifying its classification as set forth in the Dictionary of Occupational Titles.[1]

Correlation. A correlation method is "a method of determining the degree of relationship between two traits or quantities that can change or vary in amount."[2]

Rank in class. Rank in class as used in this study, refers to the scholastic standings of the graduates.

III. SCOPE AND LIMITATION OF THE STUDY

The study was conducted for the years 1943, 1948, 1953, and 1958. In conducting this study, the investigator was able to obtain ninety per cent participation of the graduates.

Class, as used in this study, refers to the graduates who were included in the study.

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[1] Department of Labor, Dictionary of Occupational Titles (Washington D. C.:, 1949), Volume I.

[2] Victor H. Noll, Introudction to Educational Measurement (Cambridge: Houghton Mifflin Company, 1957), p. 46.

The graduates of 1958 were considered as to vocational choice being pursued in college or the present employment if employed.

IV. METHOD OF STUDY

The research method pursued in this study was the descriptive survey, which involved utilization of offidal records, submitting questionnaires, and conducting interviews.

Description of instruments. A questionnaire (see Appendix A) was prepared for use in securing data from the graduates. This was supplemented by interviews and the permanent record cards of the graduates involved in the study. The Dictionary of Occupational Titles[1] was used to determine the rank of vocational choice.

The Dictionary of Occupational Titles[2] contains definitions of the various jobs found in the American economy which are arranged alphabetically according to their job titles. There are 22,028 definitions which are known by 40,023 titles. The definitions of jobs have been incorporated into the Occupation Classification Structure through the use of 8,983 code numbers.

An identification of one or more specific jobs is a

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[1] op. cit.

[2] Ibid.

job classification. Each classification is identified by a five-digit or six-digit code number.

The main consideration in determining a job classification is the duties of the job. Also considered may be industrial surroundings or work environment. Other factors considered are machines operated, articles produced, material used, and other comparable considerations. In general, included in the same classification are jobs which require similar experience, techniques, or abilities.

There are seven major occupational groups, and these are differentiated by the first digit in the code number. In turn, the major groups and divisions are divided into 581 smaller groups. They are called "three-digit groups" and are of two general types. The first types designate closely related occupations identified by the same generic terms. Those of the second type cover those occupations identified with types of work not felt covered by the more specific groups mentioned. Each three-digit group contains one or more occupations identified by having fourth, fifth, and sometimes sixth digits. Six digits are used in those numbers which identify skilled and semiskilled occupations because of the large number of jobs involved.

The general structure of the job classification is as follows:

0---Professional and managerial occupations.

0-0 through 0-3 Professional occupations.
0-4 through 0-6 Semiprofessional occupations.
0-7 through 0-9 Managerial and official occupations.

1___Clerical and sales occupations.

1-0 through 1-4 Clerical and kindred occupations.
1-5 through 1-9 Sales and kindred occupations.

2___Service occupations.

2-0 Domestic service occupations.
2-2 through 2-5 Personal service occupations.
2-6 Protective service occupations.
2-8 through 2-9 Building service workers and porters.

3___Agricultural, fishery, forestry, and kindred occupations.

3-0 through 304 Agricultural, horticultural, and kindred occupations.
3-8 Fishery occupations.
3-9 Forestry (except logging), and hunting and trapping occupations.

4 and 5___ skilled occupations.

6 and 7___ semiskilled occupations.

8 and 9___ unskilled occupations.[1]

The Spearman Rank Difference Method was used to determine correlation using two sets of figures, rank in class, and rank in the job classification.

The formula is as follows:[2]

$$e(rho)=1 \frac{6\Sigma D^2}{N(N^2 = 1)}$$, where e(rho) means rank correlation, D means difference in rank, and N means number

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[1] Ibid., p. xix.

[2] Victor H. Noll, Introduction to Educational Measurement (Cambridge: Houghton Mifflin Company, 1957), p. 408.

of people.

Procedure. The following procedure was used in the process of carrying out and completing this study.

A survey of the literature pertinent to this study was made.

The purposes of the research were explained to the superintendent and principal of the high school.

The permanent records of Madrid High School, Madrid, Iowa, were used to secure names, former addresses, and the ranks in class.

A questionnaire (see Appendix A) and letter (see Appendix B) were developed and sent to graduates who did not live in the Madrid area.

Graduates living in Madrid, Iowa, and vicinity were interviewed personally. They furnished additional addresses of graduates. Parents and relatives of graduates not living in the area were interviewed for the purpose of obtaining addresses.

The vocations of the graduates were classified according to the job code numbers of the Dictionary of Occupational Titles[1] and the information shown in tabular form.

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[1] Ibid.

A comparison was made between class rank and job classification rank.

V. REVIEW OF THE LITERATURE

There is little to be found in literature concerning the direct relationship of the individual's rank in high school graduating class and his subsequent choice of an occupation. Some studies have been made which include the relationship of rank in a high school graduating class to further educational achievement. This is a related subject since certain occupations require further schooling.

> There seems to be little doubt that it is easier to find a relationship between rank in a high school class and success in the professional schools than a relationship between said rank and a particular occupation or success in the occupation.[1]

Class ranking may mean different things to different schools. The curriculum is not standardized even for students in the same school, because of the variety of course electives offered. Credit for elective and academic courses, however, is the same.

Walter H. Campbell stressed the problem of ranking students in a graduating class in Seattle, Washington. He stated

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[1] Dewey B. Stuit, Gwendolyn S. Dickson, Thomas F. Jordan and Lester Schloerb, Predicting Success in Professional Schools (Washington D. C.: American Council on Education, 1949), p. 5.

that final rank may be determined at the year's end in some schools and at the end of the last quarter in others. Transfer of credits from other schools may mean further discrepancies.[1]

In the school system of Minneapolis, Minnesota, problems of class rank were considered and:

1. Students were grouped into slow, average, and fast classes.
2. Graduates were given diplomas that recorded the quality of work done, honors, the regular and the minimum requirements.
3. Stiffer graduation requirements were set up.
4. Additional homework was assigned those who could handle the extra work.

Changes made in the Minneapolis school separated the graduates who were grouped into general diploma, vocational diploma, and college preparation diploma catagories.[2]

In the school system of Indianapolis, Indiana, students were ranked according to the type of diploma received. A differentiated diploma and program was set up with four courses of study for students. These were: (1) academic, (2) fine or practical arts, (3) vocational, and (4) general.[3]

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[1] Walter H. Campbell, "Grade Point Average", Bulletin of the National Association of Secondary Schools, 42:52-64, May, 1958.

[2] William C. Bruce, "Diplomas or Certificate", The American School Board Journal, 138:50, May, 1959.

[3] William C. Bruce, "Surveying the School Scene", The American School Board Journal, 138:48, June, 1959.

James B. Conant suggested that a durable record be kept of courses studied and grades obtained in the four years of high school. A student should not be given a rank in class according to his grades in subjects because the desire to rank high leads to the taking of easy courses by the academically talented. Honor rolls should consist of students who had made a "B" grade, or better in courses recommended for the academically talented.[1]

Each year institutions of higher learning cite instances of a few students who make very low scores on entrance tests or have low ranks in their high school graduating classes and are successful in academic work, and also a few who score very high who fail in their academic work.

Stuit put it into these words:

> In general, however, one can say that the chances of success are good for the high-ranking student and poor for the low-ranking student. Prediction in the perfect sense is not impossible in most situations, but prediction in terms of estimating chances for success is inescapable in human affairs.[2]

Stuit has made a study in which he has attempted to find factors important to success of personnel in various

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[1] James B. Conant, The American High School Today (New York: McGraw Hill Book Company, 1959), pp. 66-67.

[2] Dewey B. Stuit, Gwendolyn S. Dickson, Thomas F. Jordan, and Lester Schloerb, Predicting Success in Professional Schools (Washington D. C.: American Council On Education, 1949), pp. 1-2.

professional schools. He found that it is easier to predict success in the training than in the ultimate job. However, he found that results obtained in research studies consistently point to the previous scholarship record as one of the best single measures which may be used in predicting the individual's chances for successfully completing many training courses. He cited such professional training as that needed for engineering, law, medicine, and dentistry. On the other hand, he feels it unwise to rely on high school records in such professions as nursing and teaching.[1]

"An interesting parallel between vocational and educational instruments does exist," said Crawford.[2]

Most writers recognize a definite relationship between the grades received in high school and the vocational choice.

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[1] Ibid.

[2] Albert B. Crawford and Paul S. Burnham, Forecasting College Achievement (New Haven: Yale University Press, 1946), p. 4.

CHAPTER II

RANK IN CLASS COMPARED WITH OCCUPATIONAL CHOICE

The information included in this study was obtained from personal interviews with the graduates of Madrid High School, and with their relatives and friends, and through letters from graduates who had moved from the vicinity.

I. CLASS OF 1943

The graduating class of Madrid High School for the year 1943 was made up of thirty-eight members, fourteen boys and twenty-four girls. Of the total thirty-eight graduates, the investigator was able to gather information about thirty, which was seventy-eight per cent of the graduating class. Information was gathered on twelve of the boys and eighteen of the girls.

Of the graduates included in this study, fifteen had attended school beyond high school. This schooling was either trade school, college, or university. A total of fifty per cent of the graduates included in the study had thus entered some form of advanced education. Of the graduates who attended school beyond high school, five were male and ten were female.

Two female graduates had married immediately and had followed no vocation.

Class rank compared with occupational choice. The figures in Table I present the graduate's rank in class followed by the code number assigned his subsequent occupation in the Dictionary of Occupational Titles.[1]

There is a general tendency for the data to show that individuals with low job code numbers, meaning higher job classifications, rank high in the class.

That graduate who ranked number one in class rank was engaged in the occupation of teaching which is a professional occupation and has a high job classification. The first nine ranking graduates were all engaged in occupations of a professional and managerial or a clerical and sales type. Correspondingly, that graduate who was at the bottom of his class scholastically carries a job code number which signifies that he was engaged in the unskilled occupation of construction laborer.

There are notable exceptions to the tendency of the graduates who ranked low scholastically to be engaged in occupations with low job classifications. The graduate with the nineteenth class rank was a nun, which is classified as a profession. The eighteenth ranking graduate has pursued a

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[1] Dictionary of Occupational Titles (Washington D. C.: 1949), Volume I.

TABLE I

RANK IN CLASS AND JOB CLASSIFICATION CODE NUMBER, MADRID HIGH SCHOOL GRADUATES, 1943

Rank	Classification Code No.
5	0-13.10
1	0-30.11
8	0-30.11
19	0-31.01
*4	0-33.42
2	0-57.21
18	0-98.01
31	1-01.53
17	1-05.01
22	1-33.01
32	1-33.01
*4	1-37.32
11	1-37.32
28	1-37.32
37	1-37.32
6	1-42.31
33	1-42.31
34	1-42.31
7	1-60.10
24	3-16.10
*36	3-16.10
16	3-37.10
27	5-81.010
13	5-83.905
10	5-92.03
34	6-78.632
*36	6-78.632
38	9-32.01
12	none
29	none

*Indicates tie in class rank.

managerial or official occupation.

The top ranking jobs with "0" classification numbers, professional and managerial occupations, were pursued by the top ranking students with the exceptions of two. There was no distinct pattern in the "1" job classification numbers, clerical and sales occupations. The remaining job classification numbers, which included occupations of service, agriculture, skilled, semi-skilled, and unskilled occupations, indicate occupations of the remaining graduates. There were no high scholastic ranking students in this group.

There was a positive correlation between rank in class and rank in job classification of .51, as determined by the use of the Spearman Rank Difference Method.

Male graduates, 1943. The figures in Table II present the male graduate's rank in class followed by the code number assigned his occupation in the Dictionary of Occupational Titles.[1]

The two graduates with professional occupations have the highest scholastic ranks of the males. The fifth ranking graduate was a dentist, and the second ranked was a teacher. All of the remaining male graduates but one have engaged in agriculture, skilled, semi-skilled, or unskilled

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[1] Ibid.

occupations. None of them have high scholastic class ranks.

There was only one exception to the tendency of the graduates who ranked low scholastically to be engaged in occupations with low job classifications. The graduate who ranked eighteenth scholastically had a managerial job.

TABLE II

RANK IN CLASS AND JOB CLASSIFICATION CODE NUMBER, MADRID HIGH SCHOOL GRADUATES, 1943, MALE

Rank	Classification Code No.
5	0-13.10
2	0-57.21
18	0-98.01
24	3-16.10
*36	3-16.10
16	3.37.10
27	5-81.010
13	5-83.905
10	5-92.03
34	6-78.632
*36	6-78.632
38	9-32.01

*Indicates tie in class rank.

There was a positive correlation between the rank in class and the rank in job classification of .62, as determined by the use of the Spearman Rank Difference Method.

Female graduates, 1943. The figrures in Table III present the female graduate's rank in class followed by the code number assigned the subsequent occupation in the

Dictionary of Occupational Titles.[1]

TABLE III

RANK IN CLASS AND JOB CLASSIFICATION CODE NUMBER, MADRID HIGH SCHOOL GRADUATES, 1943, FEMALE

Rank	Classification Code No.
1	0-30.11
8	0-30.11
19	0-31.01
*4	0-33.42
31	1-01.53
17	1-05.01
22	1-33.01
32	1-33.01
*4	1-37.32
11	1-37.32
28	1-37.32
37	1-37.32
6	1-42.31
33	1-42.31
34	1-42.31
7	1-70.10
12	none
29	none

*Indicates tie in class rank.

The highest ranking female graduate had the highest job classification, which was that of a teacher. All the females had occupations with low code numbers which indicate high job classifications. There was no distinct pattern in the "1" job classification numbers which are clerical and

[1] Ibid.

sales occupations.

There was a positive correlation between rank in class and rank in job classification of .30, as determined by the use of the Spearman Rank Difference Method.

Advanced schooling, class of 1943. Table IV shows the graduates who attended a college or trade school, how much time they spent in further education, and the job code number of the job which followed.

TABLE IV

RANK IN CLASS AND ADDITIONAL SCHOOLING, MADRID HIGH SCHOOL GRADUATES, 1943

Class Rank	Job Code Number	Graduate Work	Sex
5	0-13.10	7 years	male
2	0-57.21	4 years	male
*4	0-33.42	4 years	female
16	3-37.10	4 years	male
18	0-98.01	4 years	male
19	0-31.01	4 years	female
22	1-33.01	3 years	female
1	0-30.11	2 years	female
*4	1-37.32	1 year	female
10	5-92.03	1 year	male
32	1-33.01	1 year	female
28	1-37.32	4 months	female
11	1-37.32	3 months	female
34	6-78.632	3 months	female
37	1-37.32	6 weeks	female

*Indicates tie in class rank.

The graduate who attended school the longest ranked fifth in class scholastically and has been engaged in a profession with the lowest job code number indicating the highest job classification of the class. Two others who ranked scholastically high have attended college for four years were near the class median in rank. Several graduates with low scholastic ranks have entered into some form of advanced training. Many of the graduates with high scholastic rankings did not report having attended a college or trade school of any sort.

II. CLASS OF 1948

The graduating class of Madrid High School, 1948, consisted of thirty-three students. The investigator was able to gather information concerning thirty of these graduates. This was ninety-three per cent of the class. There were seventeen boys and sixteen girls in the group, and information was acquired about fifteen of the boys and sixteen of the girls.

Thirteen of the members of the class of 1948 continued their studies beyond high school. This was forty per cent. Four of the boys and nine of the girls entered into some form of advanced study. One student married immediately after one year of advanced study and pursued no vacation.

Class rank compared with occupational choice. The fig-

ures in Table V present the graduate's rank in class followed by the code number assigned his subsequent occupation in the Dictionary of Occupational Titles.[1]

TABLE V

RANK IN CLASS AND JOB CLASSIFICATION CODE NUMBER, MADRID HIGH SCHOOL GRADUATES, 1948

Rank	Classification Code No.
6	0-24.31
1	0-30.11
4	0-31.01
2	0-33.42
3	0-33.42
7	0-33.42
9	0-33.42
10	0-33.42
8	1-36.02
13	1-37.22
24	1-37.22
27	1-37.22
32	1-57.10
18	2-42.20
14	5-03.010
25	5-24.010
23	6-39.386
12	6-54.038
5	6-57.122
15	6-57.122
20	6-57.122
26	6-57.122
28	6-76.632
31	6-78.632
29	7-86.505
16	8-67.01
17	9-32.01
14	deceased
15	deceased
21	none

[1] Ibid.

As in the class of 1943, that graduate who finished with the first scholastic rank followed an occupation with a high job classification. The graduate with the highest job classification, indicated by the lowest code number, ranked sixth in the class scholastically, and his code number designates a professional occupation. He was a teacher of music with a Master's degree from Michigan University. All but one of the top ten ranking graduates have the highest of job classifications for the class.

An exception to the tendency of graduates who ranked high scholastically to engage in occupations with high classifications was the fifth ranking graduate who engaged in a semi-skilled occupation. The graduate with the lowest job classification was a carpenter's helper who ranked scholastically near the class median. Another graduate with an unskilled job had a scholastic rank near the class median.

The top ranking jobs with "0" classification numbers, professional and managerial occupations, were pursued by graduates with high scholastic ranks. The prominent exception to the tendency of high ranking graduates to be engaged in occupations with the highest job classifications was the fifth ranking graduate. The other graduates engaged in occupations which were clerical and sales, service, skilled, semi-skilled, and unskilled. The pattern of relationship between class rank and occupational rank was not immediately apparent

in this group. The graduates ranking fourteenth and fifteenth were deceased, and the twenty-first ranking graduate married without pursuing a vocation.

There was a positive correlation between rank in class and rank in job classification of .66, as determined by the use of the Spearman Rank Difference Method.

Male graduates, 1948. The rank in class and job classification code numbers for the male members of the class are presented in Table VI.

TABLE VI

RANK IN CLASS AND JOB CLASSIFICATION CODE NUMBER, MADRID HIGH SCHOOL GRADUATES, 1948, MALE

Rank	Classification Code No.
6	0-24.31
4	0-31.01
32	1-57.10
25	5-24.010
23	6-39.386
12	6-54.038
5	6-57.122
15	6-57.122
20	6-57.122
26	5-57.122
31	6-78.632
16	8-67.01
17	9-32.01
14	deceased
15	deceased

Two of the males entered professional vocations. They ranked near the top of the class scholastically. All of the rest of the graduates but one engaged in skilled, semi-skilled, and unskilled occupations.

Two exceptions to the tendency of the high scholasticly ranking graduates to have had an occupation of a high job class are apparent on this table. The graduate with the lowest scholastic rank engaged in a sales occupation which is indicated by a low code number. The graduate who finished fifth scholastically had a semi-skilled occupation.

There was a positive correlation between the rank in class and the rank in job classification of .19, as determined by the use of the Spearman Rank Difference Method.

Female graduates, 1948. The job classification numbers and scholastic ranks for the female members of the class of 1948 are presented in Table VII.

The female who had the lowest job code number indicating a high job classification also had the top scholastic rank in the class. The graduate with the second place scholastically also had the second highest job classification. The third ranking graduate scholastically had the third high job classification of the list. Most of the female graduates have engaged in professional or clerical occupations. The graduate ranked eighteenth held a personal service type of

job. The fourteenth ranking female graduate had engaged in a skilled occupation, and the graduates ranked twenty-eight and twenty-nine have been employed in semi-skilled occupations.

TABLE VII

RANK IN CLASS AND JOB CLASSIFICATION CODE NUMBER, MADRID HIGH SCHOOL GRADUATES, 1948 FEMALE

Rank	Classification Code No.
1	0-30.11
2	0-33.42
3	0-33.42
7	0-33.42
9	0-33.42
10	0-33.42
8	1-36.02
13	1-37.22
24	1-37.22
27	1-37.22
18	2-42.20
14	5-03.522
28	6-76.632
29	7-86.505
21	none

There was a positive correlation between the rank in class and the rank in job classification of .90, as determined by the use of the Spearman Rank Difference Method.

Advanced schooling, class of 1948. The rank in class and additional schooling of the graduates of Madrid High School of 1948 is presented in Table VIII along with their job classification code numbers.

TABLE VIII

RANK IN CLASS AND ADDITIONAL SCHOOLING
MADRID HIGH SCHOOL GRADUATES, 1948

Class Rank	Job Code Number	Graduate Work	Sex
6	0-24.31	5 years	male
1	0-30.11	4½ years	female
2	0-33.42	4 years	female
3	0-33.42	4 years	female
4	0-31.01	4 years	male
7	0-33.42	4 years	female
9	0-33.42	4 years	female
10	0-33.42	4 years	female
18	2-42.20	2 years	female
8	1-36.02	1 year	female
21	none	1 year	female
26	6-57.122	3 months	male
32	1-57.10	3 months	male

The graduate who attended school for the longest period has the lowest code number which means a high job classification, and he ranked sixth in the class scholastically. The graduate who ranked scholastically highest in the class has had almost as much additional schooling and a slightly lower job classification. Eight graduates completed four or more years of additional training, and they all ranked among the top ten scholastically. These graduates also have low code numbers which indicate professional occupations. One graduate who ranked near the class median completed two years of additional schooling and pursued a service occupation. The graduate who ranked twenty-first, which is below the class

median, completed one year of further training but entered no vocation. The graduates ranking twenty-sixth and thirty-second both completed three months of further training. One engaged in a sales occupation and the other in a semi-skilled occupation.

III. CLASS OF 1953

The next class to be considered in the study was the class of 1953. There were twenty-eight members in this class, and the investigator was able to gather information about twenty-six of the graduates which was ninety-two per cent of the class. The class numbered fifteen girls and thirteen boys. Of the fifteen girls, information was compiled on fourteen, and information was compiled on about twelve of the thirteen boys.

Eleven or forty-three per cent of the twenty-six graduates engaged in advanced schooling. Six of this group were boys and five were girls.

Class rank compared with occupational choice. The figures in Table IX show the graduate's rank in class followed by the code number assigned his subsequent occupation in the Dictionary of Occupational Titles.[1]

[1] Ibid.

TABLE IX

RANK IN CLASS AND JOB CLASSIFICATION CODE NUMBER, MADRID HIGH SCHOOL GRADUATES, 1953

Rank	Classification Code No
10	0-01.20
17	0-13.10
7	0-16.01
6	0-23.20
4	0-30.11
13	0-30.11
3	0-33.42
14	0-33.42
11	0-50.25
20	0-57.21
25	0-72.21
22	1-01.02
28	1-03.04
1	1-37.32
2	1-37.32
5	1-37.32
8	1-37.32
15	1-37.32
16	1-37.32
21	1-42.31
24	1-51.01
18	1-85.31
26	6-57.122
27	6-57.122
12	8-09.01
19	none

Four of the graduates who had high scholastic ranks engaged in occupations of a professional nature, which have high occupational classifications signified by the low code numbers. These were the third, fourth, sixth, and seventh ranking graduates. Two of the graduates with scholastic

ranks which were low in the class have followed semi-skilled occupations which have low occupational classifications signified by the higher code numbers.

Graduates ranking tenth and seventeenth were exceptions to the tendency of high ranking students to engage in jobs with high classifications. These two graduates had jobs with the highest classifications of the class. The graduate who was at the bottom of the class scholastically engaged in a clerical occupation which has a high job classification. The graduates who finished first and second scholastically have been typists. Thirteen others in the class have occupations with higher classifications than the two who finished at the top scholastically.

Almost all the members of this class have pursued occupations of the professional and managerial or the clerical and sales type. Two have pursued occupations which are classified as skilled and one an occupation which is unskilled. Only one member of the class pursued no vocation.

There was a positive correlation between rank in class and occupational choice in this class of .38, as determined by the use of the Spearman Rank Difference Method.

Male Graduates, 1953. Table X presents the scholastic ranks and job classification code numbers as given in the Dictionary of Occupational Titles,[1] of the male members of

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[1] Ibid.

the class of 1953.

TABLE X

RANK IN CLASS AND JOB CLASSIFICATION CODE NUMBER, MADRID HIGH SCHOOL GRADUATES, 1953, MALE

Rank	Classification Code No.
10	0-01.20
17	0-13.10
7	0-16.01
6	0-23.20
20	0-57.21
25	0-72.51
28	1-03.04
24	1-51.10
18	1-85.31
26	6-57.122
27	6-57.122
12	8-09.01

The two graduates who have the highest job classifications of the class appeared on this table. One was a certified public accountant and the other a dentist. Their scholastic positions are not as high as the graduates who ranked sixth and seventh and who also had professional occupations.

Six, or half of the males who reported, have engaged in professional occupations. Three of the males have had jobs of a clerical and sales type.

There was a positive correlation between rank in class and rank in occupational choice for the males of the class of

.53 as determined by the Spearman Rank Difference Method.

Female graduates, 1953. Table XI presents the class ranks and job classification code numbers for the females of the class of 1953.

TABLE XI

RANK IN CLASS AND JOB CLASSIFICATION CODE NUMBER, MADRID HIGH SCHOOL GRADUATES, 1953, FEMALE

Rank	Classification Code No.
4	0-30.11
13	0-30.11
3	0-33.42
14	0-33.42
11	0-33.42
22	1-01.02
1	1-37.32
2	1-37.32
5	1-37.32
8	1-37.32
15	1-37.32
16	1-37.32
21	1-42.31
19	none

The female graduates who ranked third and fourth in the class scholastically have pursued professional occupations which have low job code numbers denoting high job classifications.

The girls have, on the whole, higher class rankings than the boys. Most of the top ten graduates are female and very few of the low ten are female. However, the higher

ranking graduates did not necessarily have jobs with the lowest code numbers. Six of the females of the class have had jobs with higher job classifications than the graduates who finished first and second scholastically.

The females of this class all have followed jobs of a professional or clerical type, except the nineteenth ranking graduate who had no vocation.

There was a positive correlation between rank in class and rank in occupational choice of .19 for the females of this class as determined by the use of the Spearman Rank Difference Method.

Advanced schooling, class of 1953. The additional schooling of the graduates of 1953 is presented in Table XII in addition to class ranks and job code classification numbers.

All of the graduates who entered into additional training fell into the upper half of the class scholastically. The class member who graduated with the sixth highest scholastic rank completed five years of higher education. The graduates who were third, fourth, and seventh in class rank completed four years of additional training. The graduate who attended school the longest and entered a profession with the lowest code number of the class, which indicates the highest job classification, ranked seventeenth, which was

slightly below the class median in rank.

TABLE XII

RANK IN CLASS AND ADDITIONAL SCHOOLING, MADRID HIGH SCHOOL GRADUATES, 1953

Class Rank	Job Code Number	Graduate Work	Sex
17	0-13.10	7 years	male
6	0-23.20	5 years	male
3	0-33.42	4 years	female
4	0-30.11	4 years	female
7	0-16.10	4 years	male
10	0-01.20	4 years	male
20	0-57.21	4 years	male
11	0-50.25	2 years	male
13	0-30.11	2 years	female
14	0-33.42	2 years	female
24	1-51.10	3 months	male

Probably most noticeable on this table was the absence of the first and second ranking graduates who entered into no additional schooling. The graduate with the twentieth class rank completed four years of advanced work, and the class member ranking twenty-fourth completed three months of additional training.

Although the males in the class generally ranked lower scholastically, more of them have additional schooling than do the females.

IV. CLASS OF 1958

The final class to be considered in this study was the

class of Madrid High School, 1958. Insofar as this class had been graduated for only two years at the time this study was made, it was necessary to approach it in a slightly different manner. If the class member had already entered a vocation, that vocation was considered in the study. However, if the graduate was still involved in training for his intended occupation, the proposed occupation was considered. The same also held true for the time involved in advanced study. The proposed length of time of study was considered.

This class was the largest of those included in the study. The class of 1958 consisted of forty-five students, and the investigator was able to compile information about forty-four of the graduates or a total of ninety-seven per cent. Twenty-four members of the class were boys and twenty-one were girls. Information was gathered about all of the boys and all except one of the girls.

Forty-seven per cent or twenty-one of the graduates continued their schooling after high school graduation. This was twelve of the boys and nine of the girls. Three members of the class were deceased. Four members of the class married after graduation without pursuing vocations.

Class rank compared with occupational choice. The figures in Table XIII present the graduate's rank in class followed by the code number assigned his subsequent occupa-

tion in the Dictionary of Occupational Titles.[1]

The graduates who finished in the first five positions of scholastic rank all intended professions of a professional nature. The class members ranking sixth and seventh intended clerical vocations indicated by low code numbers which mean high job classifications. The three graduates who have engaged in unskilled occupations have low scholastic ranks.

The graduate who intended an occupation with the lowest code number of the class which indicates the highest job classification, ranked only ninth scholastically. Two graduates with scholastic ranks of eighteenth and twenty-first also intended to enter professions. The graduate who ranked eihth scholastically engaged in a semi-skilled occupation which carries a high code number and indicates a low job classification.

Fifteen of the graduates of the class of 1958 intended entering professional or managerial vocations. All but two of these graduates ranked scholastically above the class median. Eleven of the graduates had entered or intended to enter vocations of a clerical or sales nature. No apparent relationship between class rank and occupational rank was indicated here. One graduate entered a personal service occupation, and one an agricultural occupation. The rest of the graduates engaged in skilled, semi-skilled and un-

TABLE XIII

RANK IN CLASS AND JOB CLASSIFICATION CODE NUMBER, MADRID HIGH SCHOOL GRADUATES, 1958

Rank	Classification Code No.
9	0-13.10
4	0-17.01
12	0-22.10
21	0-22.10
5	0-24.31
1	0-30.11
18	0-30.01
2	0-31.01
*13	0-31.01
3	0-33.42
*17	0-33.42
15	0-57.21
23	0-57.21
24	0-57.21
20	0-68.24
29	1-01.31
16	1-05.01
39	1-05.01
6	1-32.10
7	1-33.01
*10	1-33.01
*13	1-37.32
*17	1-37.32
22	1-37.32
26	1-37.32
19	1-70.10
*30	1-70.10
11	2-25.37
*36	3-16.10
32	6-57.122
*30	6-57.122
*10	6-78.632
25	6-78.632
8	7-86.505

*Indicates ties in class rank.

TABLE XIII (Continued)

Rank	Classification Code No.
27	8-78.10
34	8-78.10
37	8-78.10
28	deceased
35	deceased
*36	deceased
14	none
31	none
40	none
41	none

*Indicates tie in class rank.

skilled occupations. Almost all of these ranked low scholastically.

There was a positive correlation between rank in class and rank in occupational choice of .51 for the class of 1958 as determined by use of the Spearman Rank Difference Method.

Male graduates, 1958. Presented in Table XIV are the scholastic ranks of the males and their job code numbers as determined by the Dictionary of Occupational Titles.[1]

Two of the male graduates who were training for professions ranked scholastically high in their class. Of the graduates who engaged in agriculture, skilled, semi-skilled,

[1] Ibid.

TABLE XIV

RANK IN CLASS AND JOB CLASSIFICATION CODE NUMBER, MADRID HIGH SCHOOL GRADUATES, 1958, MALE

Rank	Classification Code No.
9	0-13.10
4	0-17.01
12	0-22.10
21	0-22.10
2	0-31.01
13	0-31.01
15	0-57.21
23	0-57.21
24	0-57.21
20	0-68.24
29	1-01.31
16	1-05.01
19	1-70.10
36	3-16.10
30	6-57.122
32	6-57.122
10	6-78.632
25	6-78.632
27	8-78.10
34	8-78.10
37	8-78.10
28	deceased
35	deceased
36	deceased

and unskilled occupations, only one ranked above the class median.

Two of the male graduates who were training for semi-professional occupations had scholastic ranks which were below the class median.

Ten of the male graduates intended professional or semi-professional occupations. Two of the graduates entered

clerical occupations, and one pursued a sales occupation. Only one pursued an agricultural occupation. The rest of the males engaged in occupations which were semi-skilled or unskilled. Three members of the class were deceased.

There was a positive correlation between rank in class and rank in occupational choice of .71 as determined by use of the Spearman Rank Difference Method.

Female graduates, 1958. Presented in Table XV are the scholastic ranks of the females and their job code numbers as determined by the Dictionary of Occupational Titles.[1]

Three of the female graduates with high scholastic class ranks were training to be teachers. The graduates who ranked sixth and seventh intend to enter clerical vocations.

One female who ranked eighth scholastically pursued a semi-skilled occupation. On the other hand, a graduate with a low scholastic rank of thirty-nine entered an occupation with a low code number signifying a high job classification.

Two graduates with ranks slightly above the class median were preparing to be nurses. Three graduates were preparing to be teachers. Eight of the females had entered or

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[1] Ibid.

TABLE XV

RANK IN CLASS AND JOB CLASSIFICATION CODE NUMBER, MADRID HIGH SCHOOL GRADUATES, 1958, FEMALE

Rank	Classification Code No.
5	0-24.31
1	0-30.11
18	0-30.11
3	0-33.42
17	0-33.42
39	1-05.01
6	1-32.10
7	1-33.01
10	1-33.01
13	1-37.32
17	1-37.32
22	1-37.32
26	1-37.32
33	1-70.10
11	2-25.37
8	7-86.505
14	none
31	none
40	none
41	none

intended to enter clerical vocations. One had a sales occupation, one had a personal service occupation, and one a semi-skilled occupation. Four females married without engaging in a vocation.

There was a positive correlation between class rank of .37 for the girls of the class of 1958 as determined by the use of the Spearman Rank Difference Method.

Proposed advanced schooling, class of 1958. Table

XVI presents the proposed additional schooling of the graduates of 1958 and the job code numbers of the ultimate occupations.

The graduates who finished in the seven highest positions of scholastic rank all entered into a form of additional schooling. The top six intended to complete four years of advanced training.

However, of the three who proposed to complete seven years of further training, only one ranked in the top one-fourth of the class scholastically. One had a scholastic rank of twelve, and the other ranked twenty-one. Only one other graduate with a class rank below the class median entered into any advanced education. The graduate in the twenty-ninth place completed one year of additional training in business.

Thirteen of the members of this class proposed to complete four years of additional training. Two of these thirteen had class ranks which fell below the median of the class.

TABLE XVI

RANK IN CLASS AND PROPOSED ADDITIONAL SCHOOLING, MADRID HIGH SCHOOL GRADUATES, 1958

Class Rank	Job Code Number	Graduate Work	Sex
9	0-13.10	7 years	male
12	0-22.10	7 years	male
21	0-22.10	7 years	male
1	0-30.11	4 years	female
2	0-31.01	4 years	male
3	0-33.42	4 years	female
4	0-17.10	4 years	male
5	0-24.31	4 years	female
6	1-32.10	4 years	female
13	1-37.32	4 years	male
15	0-57.21	4 years	male
17	1-37.32	4 years	female
18	0-30.11	4 years	female
20	0-68.24	4 years	male
23	0-57.21	4 years	male
24	0-57.21	4 years	male
7	1-33.01	2 years	female
10	6-78.632	1 year	male
16	1-05.01	1 year	male
29	1-01.31	1 year	male
11	2-25.37	6 months	female

V. SUMMARY

The degree of relationship between the scholastic ranks in class and the ranks in occupational choice of the graduates included in the study was determined by the use of the Spearman Rank Difference Method. There was a positive correlation between rank in class and rank in occupational

choice in each class included in the study. The correlation between rank in class and rank in occupational choice was positive for each group of male graduates and each group of female graduates as they were considered separately in the study. The correlation figure for the class of 1943, Madrid High School, was .51. The figure was .62 for the males of the class and .30 for the females. The class of 1948 at Madrid had a correlation figure of .66 with a figure of .19 for the male graduates and .90 for the female graduates. The resulting correlation figure for the class of Madrid High School, 1953, was .38 with a figure of .53 for the males of this class and .19 for the girls. The class of 1958 at Madrid had a rank correlation of .52. The figure was .71 for the male graduates of this class and .37 for the females.

CHAPTER III

SUMMARY

The purpose of this study was to determine the comparative relationship between the occupational choice and the rank in class of the graduates of Madrid High School, Madrid Iowa, for the years 1943, 1948, 1953, and 1958. The investigator felt that there was a need to attempt to determine the correlation between scholastic rank in high school graduating class and resulting vocational choice.

The procedure followed in this study was: (1) to contact the graduates, (2) to determine the job classification numbers of the jobs of the graduates, (3) to determine the class ranks of the graduates from school records, (4) and to compute the correlation between job rank and class rank using the Spearman Rank Difference Method.

The correlation figure for the class of 1943, Madrid High School was .51. The figure was .62 for the males of the class and .30 for the females.

The class of 1948 at Madrid had a rank correlation of .66. The figure was .19 for the male graduates and .90 for the female graduates.

The resulting correlation figure for the class of Madrid High School, 1953, was .38. Rank correlation figured to

be .53 for the males of this class and .19 for the girls.

The class of 1958 at Madrid had a rank correlation of .52. Rank correlation was .71 for the male graduates of this class and .37 for the female graduates.

All correlation figures were positive.

The study was carried out during the 1959-60 school year at Madrid, Iowa.

In conclusion there was a positive relationship between class rank and job classification, and correlation between class rank and job classification was slightly higher for the males than for the females. Graduates and their parents were apparently very interested in contributing to research of this type.

BIBLIOGRAPHY

A. BOOKS

Conant, James B. The American High School Today. New York: McGraw Hill Book Company, 1959.

Lord, Albert B., and Paul S. Burnham. Forecasting College Achievement. New Haven: Yale University Press, 1946.

Department of Labor. Dictionary of Occupational Titles. Washington D.C.: United States Government Printing Office, 1959.

Lindquist, Victor H. Introduction to Educational Measurement. Cambridge: Houghton Mifflin Company, 1957.

Remmers, H. H., and N. L. Gage. Educational Measurement and Evaluation. New York: Harper Brothers, 1943.

Thorndike, R. C. Personnel and Guidance Problems. Englewood Cliffs: Prentice Hall, 1954.

Tyler, Leona E., Chancellor S. Elliott, Thomas P. Jorgensen, and Walter Scott Monroe. Problems Related to Professional Schools. Washington D.C.: American Council on Education, 1949.

BIBLIOGRAPHY

A. BOOKS

Conant, James B. The American High School Today. New York: McGraw Hill Book Company, 1959.

Crawford, Albert B., and Paul S. Burnham. Forecasting College Achievement. New Haven: Yale University Press 1946.

Department of Labor. Dictionary of Occupational Titles. Washington D.C.: United States Government Printing Office, 1959.

Noll, Victor H. Introduction to Educational Measurement. Cambridge: Houghton Mifflin Company, 1957.

Remmers, H. H., and N. L. Gage. Educational Measurement and Evaluation. New York: Harper Brothers, 1943.

Ross, C. C. Measurement in Today's Schools. Englewood Cliffs: Prentice Hall, 1954.

Stuit, Dewey B., Gwendolen S. Dickson, Thomas F. Jordan, and Lester Schloerb. Predicting Success in Professional Schools. Washington D. C.: American Council on Education, 1949.

B. PERIODICALS

Bruce, William C. "Diplomas or Certificate", The American School Board Journal, 138:50, May, 1959.

_____. "Surveying the School Scene", The American School Board Journal, 138:48, June, 1959.

Campbell, Walter H. "Grade Point Average", Bulletin of the National Association of Secondary Schools, 42:52-64, May, 1958.

Elvin, H. L. "The Secondary School Curriculum in the Changing Twentieth Century", The School Review, 67:45-59, Spring, 1959.

Fisher, Joan H. "Are Rickover and Conant Writing About the Same Thing?", School Executive, 78:74-75, May, 1959.

Kuznets, Lois R. "What's Behind the High School Diploma", NEA Journal, 49:14-16, January, 1960.

Staff of the State University of New York. "Crucial Questions About Higher Education", Education Digest, April, 1956, 26-28.

Williams, Henrietta V., and John P. McQuary. "High School Performance of College Freshmen", Educational Administration and Supervision, May, 1953, 303-308.

C. UNPUBLISHED MATERIALS

Madrid Independent School. "Record of Graduates, 1933 to 1943". Official Record, Madrid Independent School. Madrid, Iowa.

Madrid Independent School. "Record of Graduates, 1944 to Date". Official Record, Madrid Independent School. Madrid, Iowa.

APPENDIX A

Questionnaire

1. Name --- _____.
2. Address --- _____.
3. Year of graduation --- _____.
4. Schooling beyond high school --- _____.
5. Occupation at present --- _____.
6. Occupations pursued since graduation --- _____

_____.
7. Years spent in present occupation --- _____.
8. If married woman, occupation of husband --- _____

_____.

APPENDIXES

APPENDIX A

Questionnaire

1. Name --- _____.
2. Address --- _____.
3. Year of graduation --- _____.
4. Schooling beyond high school --- _____.
5. Occupation at present --- _____.
6. Occupations pursued since graduation --- _____

   _____.
7. Years spent in present occupation --- _____.
8. If married woman, occupation of husband --- _____

   _____.

APPENDIX B

Enclosed Letter

106 South Main
Madrid, Iowa
February 3, 1960

Dear _____,

If you would fill in the enclosed questionnaire and return it to me in the self-addressed envelope, I would appreciate it very much.

I am a teacher at Madrid High School and the information will be included in a study I am preparing for graduate credit. It is, in part, a follow-up of the graduates of your class at Madrid High School.

Thank you,

Bill Salmon
Madrid, Iowa